

REMARKS/ARGUMENTS

The present Amendment is responsive to the non-final Office Action mailed August 16, 2007 in the above-identified application.

New claim 8 is added so as more fully to claim patentable aspect of Applicant's invention. Accordingly, claims 5-8 are the claims currently presented for examination.

Applicant's Statement of Substance of Interview

Applicant thanks the Examiner for the opportunity of a telephone interview conducted on November 9, 2007. During the interview, Applicant's representative argued that Lauchaux and Böke do not disclose or suggest an expansion tank system that includes a tank for containing liquid and/or gas and an additional valve formed to be closed during normal operation to be opened when a second overpressure exists in the tank greater than a first overpressure. The Examiner took the position that the outlet duct 14' of Böke, shown in Fig. 2 of Böke, is "like a tank" because fluid passes through it, and that therefore the check valve 42' of Böke is similar to the additional valve discussed in claim 7. No agreement was reached on this point. The Examiner tentatively agreed, however, that the cited art does not appear to disclose or suggest a valve that closes off the main channel both at a defined overpressure and at a defined liquid level in the tank, and suggested that amending the independent claim such that subparagraphs a) and b) would be connected by the conjunctive "and" instead of "and/or" would appear to overcome the cited art. The foregoing will serve as Applicant's statement of the substance of the interview.

Rejection of Claims 5-7 under 35 U.S.C. § 103

Claims 5-7 are rejected under 35 U.S.C. § 103 as being obvious from Lachaux, U.S. Patent No. 4,386,627 in view of Böke, WO 01/07356 (references herein will be to Böke, U.S. Patent No. 6,682,316). Reconsideration of this rejection is respectfully requested.

Independent claim 7 requires an expansion tank system operable to be connected to a pipe system, the expansion tank system comprising a tank configured for containing a liquid and/or a gas, and an additional valve positioned in the auxiliary channel formed to close off the auxiliary channel, the additional valve being formed to be closed during normal operation of the expansion tank when connected to the pipe system and to be opened when, during operation, a second overpressure exists in the tank greater than the overpressure which exists ex works.

Even if combined as proposed by the Office Action, Lachaux and Böke do not disclose or suggest an additional valve positioned in the auxiliary channel formed to close off the auxiliary channel, the additional valve being formed to be opened when a second overpressure exists in the tank greater than the overpressure which exists ex works, as required by claim 7.

The Office Action acknowledges that the primary reference Lachaux does not disclose or suggest such an additional valve positioned in the auxiliary channel (Office Action, page 3). However, the Office Action cites the check valve 42' of Böke as corresponding to such an additional valve (Office Action, page 4 and page 5). The check valve 42' of Böke is designed such that:

In the case of a rapid increase in pressure in the outlet duct 14' with the dispensing valve closed and the solenoid valve closed, for example owing to an expansion of the fuel due to strong insolation [sunlight exposure] or due to a car running over the petrol pump hose, fuel is allowed to get from the outlet duct 14' into the inlet duct 12' via the check valve 42' so as to prevent damage to the dispensing valve or the solenoid valve 10'. . . . [T]he check valve 42' is opened for so long until [sic] the pressure in the outlet duct 14' again decreases below a value predefined by the spring. This ensures that the pressure in the outlet duct 14' does not exceed a certain value.

(Böke, col. 4, lines 25-38.) Thus, Böke's check valve 42' is unrelated to overpressure existing in the tank, as required by claim 7. As discussed, Böke's check valve 42' is designed to deal with excessively high pressure in the inlet duct 12 (or 12') outside of the solenoid valve 10' of the petrol dispensing system. Thus, Lachaux and Böke do not disclose or suggest the recitations of claim 7.

As discussed, during the telephone interview the Examiner suggested that the outlet duct 14' of Böke, shown in Fig. 2, is "like a tank" in that fluid passes through it and therefore the check valve 42' of Böke is similar to the additional valve discussed in claim 7.

First, the outlet duct 14' is not a tank "configured for containing a liquid and/or a gas," as required by claim 7. In a similar vein, an overpressure in a tank disclosed in Böke would not cause check valve 42' to open. As discussed, check valve 42' is unrelated to the problem of overpressure in the tank. More generally, the feature of providing an additional valve for responding to the overpressure in the tank for containing a liquid or a gas is not disclosed by Lachaux and Böke.

Further, since Lachaux and Böke do not disclose or suggest such features, Lachaux and Böke are incapable of disclosing or suggesting that the additional valve opens when the second overpressure existing in the tank is greater than the overpressure which exists ex works. That is, Lachaux and Böke do not disclose or suggest an additional valve designed to respond to a second overpressure in the tank greater than a first overpressure that exists in the tank. As discussed, Böke does not deal with the problem of overpressure existing in the tank, let alone an additional valve that is designed to handle an overpressure defined in relation to a first overpressure (the overpressure that exists in the tank ex works).

Lack of Obviousness

Moreover, it is respectfully submitted that the recitations of claim 7 would not have been obvious based on the cited art because Lachaux and Böke do not disclose or suggest problems solved by the apparatus recited in claim 7. The Office Action states that:

The examiner is simply taking the teaching of installing a check valve into a main valve that would be used to protect the valve and system to allow excess pressure that can build up on one side to escape to another. Therefore the examiner is simply taking the check valve 42' of Böke and installing it into the main valve of Lachaux.

(Office Action, page 5.) However, Böke is not directed to the above-discussed problems (the problem of opening an additional valve to enable reopening of the main valve when the main valve is shut due to rapid suction, or any other problem due to overpressure in the tank). Lachaux also does not address such problems. As discussed in the previous Amendment, Lachaux is directed to preventing fluid from leaving chamber 33 too quickly to prevent slamming of the main valve and damage to the apparatus (Lachaux, Figs. 2 and 3).

Thus, it is respectfully submitted that to arrive at the proposed combination a person of ordinary skill in the art would have at least had to seize on the check valve 42' of Böke, to modify it somehow to be responsive to overpressure in the tank in view of the problems recognized and solutions provided by Applicant's disclosure, to combine the modified check valve with Lachaux, and then to configure the valve so that it is responsive to overpressure that is higher than the overpressure when the tank is delivered ex works. Therefore, it is respectfully submitted that the Office Action seems to be engaging in impermissible hindsight reconstruction based on Applicant's own disclosure.

Further, Applicant maintains the objection to the proposed combination of Böke and Lachaux based on the lack of suggestion or motivation grounds set forth in the previous Amendment.

In view of the foregoing discussion withdrawal of the rejections and allowance of the application are respectfully requested.

THIS CORRESPONDENCE IS BEING
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Respectfully submitted,



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